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Remarks

It is believed that the following remarks attend to all rejections presented in the pending February 15, 2006 office action. Claims 10-12, 14-18, 20-32 remain pending in the application, of which claims 10 and 16 are independent. Claim 33 is newly added as supported, for example, by Figure 73 as filed.

Declaration Issues Regarding Eric Edstrom & Robert Muir Holme

This application claims priority to U.S. Application No. 10/297,270 and finally to PCT/US01/51620. The '270 Application is the national stage application (35 U.S.C. §371) of PCT/US01/51620. These applications had, originally, 328 claims, and included inventorship of Edstrom & Holme. Upon filing this present application, the claims corresponding to, for example, claims 323-328 (and not claims 1-322) of the '270 Application. Inventorship of these claims properly does not include Edstrom & Holme; therefore the inventive entity is correct without these two inventors.

Objection to Preliminary Amendment Filed 6-20-03

Responsive to the Examiner's objection, the above amendments to paragraph [0002] of the specification is essentially the same amendment as the preliminary amendment of this date – except that it is properly formatted.

Objections to the Abstract

The abstract is amended to lower the number of words and remove merits, per the Examiner's objection; the abstract is essentially now language of independent claims 10, 16.

Objection to paragraph 0001

Paragraph [0001] is amended to provide the status of the '270 application, per the Examiner's request.

Miscellaneous Remarks in Paragraphs 6 and 7 of Pending Office Action

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We concur with the Examiner's statement in paragraph 6 of the pending office action. It is believed that the citations of art within the application and not submitted on Form PTO 892 are background prior art material only.

It is believed that all trademarks are capitalized to provide proper respect to these marks.

37 C.F.R. §1.75(a) Objections

Claim amendments are made to claims 10-31 to attend to the Examiner rejections of this paragraph 8 in the pending office action. The amendments were numerous and we believe complete to attend to each issue raised by the Examiner, and without adding new matter.

Claim Rejections under 35 U.S.C. § 103

Claim 13 is canceled and essentially amended into claim 10; and claim 19 is incorporated into claim 16. Accordingly, method claims 10-12, 14-15, 28-31 are rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,563,417 ("Shaw") in view of U.S. Patent No. 5,963,523 ("West"). We respectfully disagree.

The following is a quotation from the MPEP setting forth the three basic criteria that must be met to establish a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion of motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP, §2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Amended claim 10 requires:

- (A) attaching one or more smart sensors directly to the product at the first location;
- (B) monitoring at least one environmental condition of the product via the one or more smart sensors and during shipment, wherein the step of monitoring at least one environmental condition comprises detecting acceleration at at least one of the one or more smart sensors;

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- (C) wirelessly communicating the environmental condition from the one or more smart sensors to a receiver at the second location; and
- (D) communicating the environmental condition from the receiver to a third location.

Shaw discloses interrogation, monitoring and data exchange using RFID tags but does not – anywhere - disclose an accelerometer or sensing acceleration as an environmental condition. West discloses disposition of packaging but does not – anywhere - disclose attaching an accelerometer to a product. Therefore the combination of Shaw and West does not disclose claim 10 and thus fails under 35 U.S.C. §103 (since the combination does not teach or suggest all claim limitations). In fact, West teaches away from claim 10's feature of acceleration (as required in claim 10) for example by disclosing monitoring only the enclosure: "In the description and claims that follow, the term 'enclosure' is intended to encompass any portion of space surrounded by a protecting or containing a surface in which items are placed whose unwanted disposition is to be monitored." West, col. 5, lines 66-67 to col. 6, lines 1-2. This specifically does not include attachment to the product, as in claim 10, for example. Also note as follows (West, col. 13, lines 6-9): "The type of packaging material used as a surrounding shell for concealment is selected in accordance with the type of environmental sensor used." So, again, West actually teaches away from placement of a sensor on the product.

It should be noted also that there is no motivation to combine Shaw with West. Shaw does not disclose anything in respect to acceleration and does not suggest that it would be useful to measure acceleration. West on the other hand discloses monitoring the environment of an enclosure – which does necessarily have a direct correlation to the product itself – and therefore teaches away from claim 10.

We disagree, respectfully, with the Examiner's assessment that one skilled in the art may apply techniques of West to Shaw to render claim 10 (which includes claim 13). We argue, as above, that the patents in fact teach away from the recitation of claim 10; accordingly we must ask for evidence pursuant to MPEP §2144 that supports the Examiner's assertion.

Claims 11-12, 14-15, 27-31 depend from claim 10 and benefit from like arguments. But these claims too have reasons for patentability over the art of Shaw and West. For example, claim 14 discloses attaching at least one accelerometer to the product, and further comprising detecting free fall to determine a drop distance of the product. Shaw does not disclose

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acceleration or use of an accelerometer; West does not disclose attaching an accelerometer directly to the product, as in claim 10, and neither does it disclose determining drop distance, which is a useful parameter to understand during shipping (for example to see if a package fell 1, 2, 3, 4, 5, 10, 20, 50 and 100 feet as described in paragraph [0046] of the application).

The Examiner further relies upon Tennes (U.S. Patent No. 4,745,564) and Thompson (U.S. Patent No. 4,862,394) in rejecting claim 14. We disagree that these assist to render claim 14 unpatentable. Tennes discloses acceleration, and that acceleration is in three axes. Thompson discloses a drop height recorder. The Examiner appears to have found features in various patents - in violation of hindsight - in an effort to render claim 14. We must strongly disagree and note that this too violates established case law:

In making the assessment of differences, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983) (noting that "virtually all [inventions] are combinations of old elements."). The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result - often the very definition of invention. Ruiz v. A.B. Chance Co (Fed. Cir., 01/29/04).

Moreover, again, we ask for proof that one skilled in the art can modify Tennes to the invention of Shaw to assist in this rendering, because we contend that such motivation does not exist, per MPEP §2144.

Claim 27 requires attaching a plurality of identical smart sensors to different locations on the product, each of the identical smart sensors configured to detect like environmental condition. Neither Shaw nor West disclose attaching multiple identical smart sensors to a product (again, Shaw does not disclose acceleration/accelerometer and West does not disclose attaching a sensor directly to product). Accordingly, these patents cannot make claim 27 unpatentable. Use of multiple sensors is useful, as for example described in paragraph 372 of the specification: This

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is particularly useful for complex medical devices that may have a relatively sturdy base and a fragile robotic arm, each with different performance specifications (e.g., each with a maximum load allowance); sensors 1602 may thus each attach to separate area of product 1604 so that product integrity information 1619 may be determined for multiple locations. In other words, the product can be monitored at multiple locations directly on its body, do that more sensitive parts of the product may be evaluated in comparison to less sensitive parts, for example. Shaw and West simply have no teaching or suggestion of such features.

Claim 30 is argued similarly, as it requires: attaching a plurality of accelerometers to the product, wherein the environmental condition comprise impact of the product. Again, Shaw and West do not disclose multiple sensors attached directly to the product such that different parts of the product may be directly monitored, for example.

The Examiner further relies upon Tennes in rejecting claim 30. We disagree that Tennes assists in any way to render claim 14 unpatentable. Tennes discloses acceleration, and that acceleration is in three axes. Again we respectfully assert that the Examiner appears to have found features in various patents – in violation of hindsight – in an effort to render claim 30. We must strongly disagree and note that this too violates established case law of Ruiz.

Moreover, again, we ask for proof that one skilled in the art can modify Tennes to the invention of Shaw to obtain the features of claim 30, because we contend that such motivation clearly does not exist, per MPEP §2144.

Claim 31 discloses sticking the one or more sensors onto the product. Neither Shaw nor West disclose this feature – which of course makes it easy and fast to attach the sensors to the product. The Examiner asserts specifically that Shaw discloses this feature in the abstract, col. 4, lines 48-62 and col. 9, line 54; however we disagree. These sections and the entire disclosure of Shaw are silent to the feature of "sticking" sensors onto a product. Shaw disclosure of "mounting" an RFID tag cannot be read to include "sticking" onto a product as in claim 31 without impermissible hindsight.

Amended claim 16 recites the following elements in a system for determining integrity of a product through shipment: one or more smart sensors for attachment to the product and an interrogating device, the one or more sensors monitoring at least one environmental condition of the product during shipment and wirelessly communicating data about the environmental condition to the interrogating device during or after shipment, the interrogating device

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communicating the environmental condition over a network, wherein the one or more sensors comprise an accelerometer and the environmental condition comprises acceleration.

As argued above, Shaw and West fail to teach attachment to the product with an accelerometer. They also lack motivation to combine or suggest this feature. The above arguments are used fully to counter the Examiner's rejection of claim 16 (in combination with claim 19 due to the claim amendments herein).

Claims 17-18, 20-26 depend from claim 16 and benefit from like arguments; but these claims have further reasons that patentably distinguish over Shaw and West (and other art cited by the Examiner, per the arguments below). For example, claim 20 requires that the environmental condition include both of impact and temperature, a feature absent from both Shaw and West. Likewise in claim 21 (also argued above), which requires that the environmental condition include free fall to determine a drop distance of the product. In claim 22, an acceleration "event" is recited – which is absent again from Shaw and West (remembering that Shaw does not disclose acceleration and West does not disclose sensing product directly).

The Examiner further relies upon Tennes in rejecting claim 20, and upon Thompson in rejecting claim 21. We disagree that Tennes assists in any way to render claim 20 unpatentable. Again, Tennes discloses acceleration and that acceleration is in three axes. Thompson, again, merely discloses a drop height recorder. Again we respectfully assert that the Examiner appears to have found features in various patents – in violation of hindsight – in an effort to render claims 20, 21 unpatentable. We must strongly disagree and note that this too violates established case law of Ruiz.

Moreover, again, we ask for proof that one skilled in the art can modify Tennes to the invention of Shaw to obtain the features of claim 20, because we contend that such motivation clearly does not exist, per MPEP §2144. Likewise for modifying Thompson with Shaw to render claim 21; we strongly disagree.

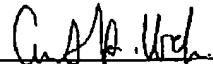
Other than a two month extension of time, it is believed that no fees are due in connection with this amendment (the added new claim does not add a fee in view of canceled claims 13, 19). If any fee is however due in connection with this response, please charge Deposit Account No. 12-0600.

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We request that the Examiner contact the undersigned for a telephonic interview if any claims will still be rejected or if prosecution of the application may be expedited thereby.

Respectfully submitted,

LATHROP & GAGE.

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